Serial No. 09/664,565

## IN THE CLAIMS:

Please amend claims as follows:

- 1-8. (cancelled)
- 9. (new) A method for configuring a router in a communication network using an Open Shortest Path First (OSPF) protocol, comprising:
- (a) determining that the router is not physically or virtually connected to a backbone of the network or an area border router (ABR) of the network;
- (b) establishing at least one physical link from the router to at least one non-ABR or at least one ABR of the network:
- (c) establishing a virtual link from the router to the backbone through the at least one non-ABR and at least one ABR of an area associated with the at least one non-ABR when, at the step (b), said physical link is established to the at least one non-ABR; and
- (d) establishing a virtual link from the router to the backbone through the at least one ABR when, at the step (b), the physical link is established to the at least one ABR.
- 10. (new) The method of claim 9 wherein at least one of the steps (a), (c), and (d) further comprises:

using a network management system (NMS).

- 11. (new) The method of claim 9 wherein the step (b) further comprises: establishing the physical links having minimal network latencies.
- 12. (new) The method of claim 9 wherein the step (c) further comprises: establishing the virtual link from the at least one ABR to the backbone.
- 13. (new) The method of claim 9 wherein the step (d) further comprises: establishing the virtual link from the at least one ABR to the backbone.

389101\_1

Serial No. 09/664,565

14. (new) A method for configuring a communication network using an Open Shortest Path First (OSPF) protocol, comprising:

grouping routers of the network to form at least one routing domain, each routing domain including a plurality of neighboring routers;

forming in each routing domain at least one area border router (ABR) having at least one physical link to a backbone of the network and/or a router of other routing domain of the network; and

configuring the routers using the steps of:

- (a) determining that a router is not physically or virtually connected to a backbone of the network or the ABR of the network;
- (b) establishing at least one physical link from the router to at least one non-ABR or at least one ABR of the network;
- (c) establishing a virtual link from the router to the backbone through the at least one non-ABR and at least one ABR of an area associated with the at least one non-ABR when, at the step (b), the physical link is established to the at least one non-ABR; and
- (d) establishing a virtual link from the router to the backbone through the at least one ABR when, at the step (b), the physical link is established to the at least one ABR.
- 15. (new) The method of claim 14 wherein at least one of the steps (a), (c), and (d) further comprises:

using a network management system (NMS).

- 16. (new) The method of claim 14 wherein the step (b) further comprises: establishing the physical links having minimal network latencies.
- **17**. (new) The method of claim 14 wherein the step (c) further comprises:

369101\_1

Serial No. 09/664,565

establishing the virtual link from the at least one ABR to the backbone.

18. (new) The method of claim 14 wherein the step (d) further comprises: establishing the virtual link from the at least one ABR to the backbone.